# SNL MESA Project
# MicroFab RFQ Amendments Log

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| 85 | 12501 Horizontal Blinds | Specification | Please refer to specification section12501 Horizontal Blinds. Are the hold down clips and light channels required for these blinds? | 2/5/2003 | **No.** | N | 8 |
| 202 | CCTV Requirements | General | Clarify the CCTV requirements for the mFab. | 2/12/2003 | **Cameras and accessories to be the same as for exterior security cameras (Make: Philips Electronics - See Amendment #3), except that weatherproof housnig is not required and these cameras will not be SFE. In addition provide recorder/monitors to be VS8394 Series.** | N | 8 |
| 223 | 7130 and 7140 | Specification | There are two spec sections for waterproofing, 7130 and 7140. However, neither of these products is indicated on the building sections. For example on sheet AE3004858EF detail 1 shows no waterproofing on the below grade concrete foundation wall. On the above grade portion of the wall an air barrier is indicated but no waterproofing. Please clarify where these two sections apply. | 2/13/2003 | **Sheet waterproofing is to be installed on foundation walls. Fluid applied waterproofing is to be installed on horizontal slabs below grade as with the mFab basement south area. A vapor barrier is to be installed under slab on grade areas for the chemical rooms and spec gas room.** | N | 8 |
| 230 | 7765 | Section | Where is section 7765 " Roof Pavers and Ballast Materials" to be used? | 2/13/2003 | **See Drawing AE1022858EF for location of ballast.** | Y | 8 |
| 242 | GC1201E13 | Drawing | Keyed note 2 identifies graded, gravel road. Identify thickness and gradation | 2/13/2003 | **Gravel to be 3/4" crushed gravel, two inches thick.** | N | 8 |
| 243 | GC1201E13 | Drawing | Keyed Note 4: 2 lane Temporary Asphalt Paved Road. Could not locate paving section for temporary asphalt, not on sequience 30 should identify full width and any shoulders. | 2/13/2003 | **See Seq. 4 General Note 1) All Temporary roads shall be 3"asphalt and 6" base coarse.** | N | 8 |
| 244 | GC1201E13 | Drawing | Keyed note 27: Install 2 -10' wide construction fence swing gates.<br><br>How will gates be installed when present road width is +/- 36 feet at 20th street?<br><br>How will we set these 2-10' gates? | 2/13/2003 | **Extend chain link fence into existing pavement and set.** | N | 8 |
| 258 | AE6001858EF | Drawing | Doors L1500, L1500B, L1502, L1504, L1506, L1508, L1510, and L1540 appear to have sidelight frames as shown on drawing AE1029858EF. However, nothing | 2/14/2003 | **See Revised AE6001858EF.** | Y | 8 |

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| | | | ondrawing AE6001858EF, the door schedule and door frame type description, would indicate that any of the door frames are to include sidelights. If sidelights are included, could we have clarification on their size and construction details, please? | | | | |
| 260 | Area 4A-Partial Floor Plan | AE1029858EF | Reference Sheet AE1029858EF, "Area 4A - Partial Floor Plan." Interior doors L1500, L1502, L1504, L1506, L1508, L1510, and L1540 are shown to have sidelites. However, there is no detail for the sidelites on the Door/Window details and schedules. Please clarify whether sidelites are required, and if so provide details. | 2/14/2003 | **"Frame type4" will be added to provide 2'-0" sidelite (full height of door) and revise door schedule. Refer to AE6001858EF.** | Y | 8 |
| 275 | Comments | General | Construction joints for the micro fab mat foundation and walls are clearly shown, however no construction joints are detailed for the two way joists/dome slab. Do you want the dome slab to be formed and poured in one pour? If not, how many? Where would you want the joints to be located, if any? | 2/17/2003 | **Location of construction joints will be submitted by the contractor on the reinforcing shop drawings with lap locations based on contractors proposed construction method** | N | 8 |
| 279 | General | Drawing | The HWS & HWR lines that feed HV-1 changes size from 2 ½" to 1 ½" after it changes direction. What size should it be? | 2/17/2003 | **Piping to be 2 1/2" the entire length.** | N | 8 |
| 280 | Seq. 048 | Drawing | The tower water return lines show 12" on Seq. 048 and on flow diagram is show 14", Seq. 057. What size should it be? | 2/17/2003 | **The line size is 12" and the connection at the tower is 14". See revised drawings MP1001858J & MP7001858J.** | Y | 8 |
| 281 | Seq. 048 | Drawing | The by-pass line in the MCWR by the Heat Exchanger HX-01 with valve C-36 is not in the correct location on Seq. 048. | 2/17/2003 | **Valve C-36 is in the correct location.** | N | 8 |
| 285 | AE1029858EF | Drawing | Drawing AE1029858EF – grid 6.8->7 dimension is 7'-7", should be 8'-3", please clarify | 2/17/2003 | **Should be 8'-3"** | N | 8 |
| 286 | East Wall | Drawing | East wall of microfab (grid W) is drawn/dimensioned at 2'-0" (basement) and 1'-7" (fab level) in various drawings, please clarify which is correct. | 2/17/2003 | **2'-0" at basement. 1'-8" at 1st floor precast panels** | N | 8 |
| 288 | AE1029858EF | Drawing | There are 2 doors labeled L1500B on sheet | 2/17/2003 | **Change door in south wall to L1542, see revised door** | Y | 8 |

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| | | | AE1029858EF. Please change one. | | **schedule. Refer to AE6001858EF.** | | |
| 289 | L1500A, L1500B, L1040, L1541 | Drawing | Should doors L1500A, L1500B (in exterior wall), L1040 and L1541 be aluminum (elevations indicate this)? They are listed as HM in the door schedule. | 2/17/2003 | **All these should be aluminum, see revised door schedule. Refer to AE6001858EF.** | Y | 8 |
| 290 | L1510, L1508, L1506, L1504, L1502, L1500B (conference room), L1540 and L1500 | Doors | No elevations or sizes are shown for the relites next to doors L1510, L1508, L1506, L1504, L1502, L1500B (conference room), L1540 and L1500. Please provide. | 2/17/2003 | **See new frame type on AE6001858EF.** | Y | 8 |
| 292 | 1996, 1997, and 1997B | Doors | The door schedule calls for details 7,8,9/6003 for doors 1996, 1997, and 1997B. These are for overhead doors, please clarify. | 2/17/2003 | **See revised door schedule. Refer to AE6001858EF.** | Y | 8 |
| 294 | 07140 | Drawing | 07140 (Fluid-Applied Waterproofing) is not called out in the drawings. We have assumed that it is applied to horizontal buried structural slabs. | 2/17/2003 | **Correct** | N | 8 |
| 295 | 07160 | Drawing | 07160 (Cement Waterproofing for Concrete) is not called out in the drawings. We have assumed that it is applied to the walls in the CUB underground concrete tanks. | 2/17/2003 | **"Thoroseal" as Specified is for exterior walls of room 1997 where exposed. CUB-1 sumps are to be sheet waterproofing.** | N | 8 |
| 298 | Comment | General | The tech office skin is shown with both 22' (south elevation) and 19' (east/west elevations, sections) tall exterior walls. Clarify which is correct. | 2/17/2003 | **South parapet is 19' per detail 3/AE3006858EF east and west walls are 19'-8" per details 5/6/AE3006858EF.** | N | 8 |
| 299 | 3/AE3003 and 9/SB3001 | Drawing | The detail at the base of the precast skin panels differs between architectural drawings (3/AE3003) and structural drawings (9/SB3001). The architectural drawings show the panels stopping on a curb at elevation el. 5439.33' while the structurals show them going down to the slab at el. 5438'(98') with a curb behind. Please clarify. | 2/17/2003 | **Structural drawings are correct.** | N | 8 |
| 306 | Comment | General | The specified chiller performance data, which is scheduled for the variable speed chillers, includes IEEE harmonic filters. The written specifications do not call for harmonic filters. We advise that IEEE harmonic filters be added to the specifications in order to prevent a total harmonic distortion in the central plant due to the | 2/18/2003 | **Agree, refer to specification 15625, 2.12G to include IEEE harmonic filters.** | N | 8 |

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| | | | chiller and pump variable speed drives and any negative interference on the central plant controls. Please clarify the intent | | | | |
| 311 | FJ7001858EF | Drawing | Drawing FJ7001858EF shows Remote HMI in Buildings 858L, 802, KAFB Fire Department and 858 ERS Room. These are not shown anywhere else on the drawings. Are these Remote HMI's existing? Supplied by others? Supplied by this contractor? | 2/18/2003 | **The remote HMIs are supplied by others.** | N | 8 |
| 312 | Comment | RFQ | Can you please confirm what , if any, changes were made between the draft RFQ #4561 and the final version? | 2/18/2003 | **All changes to the RFQ have been incorporated via Amendment. All amendments are posted on the website.** | N | 8 |
| 313 | AE3005858EF Seq. 123 & 121 | Drawing | Wall type "C" is indicated to be a 3hr partition on AE3005858EF/seq.123 and detail 4on AE3003858EF/seq.121 shows this particular wall to be a 4hr partition. Will partition types supersede details? | 2/18/2003 | **Wall type "C" is 3 hour.** | N | 8 |
| 324 | Comment | General | Exterior furred walls at level 1 are not labeled should these walls be considered Type "F" ? | 2/19/2003 | **Stairs #2-#4 at "basement" level have type F as with AE1006858EF.** | N | 8 |
| 330 | 15213S Part 1.04 A.1 & s. | Section | Specify "Summer Design Condition". | 2/19/2003 | **Summer -**<br>**Sensible: 104 F (DB)/58 F (WB)**<br>**Latent: 70 F (DB)/66 F (WB)**<br>**Winter - 5 F (DB)** | N | 8 |
| 332 | 15211S Part 2.A | Section | Section 15211S Part 2.A. states Simplex but Part 2.08.B. and 2.08.C. specify Lead-Lag and Electrical alternation which implies Duplex units, please clarify. | 2/19/2003 | **Spec does not apply, control air is from the CDA system.** | N | 8 |
| 333 | 15211S Part 1.04.3 | Section | Section 15211S Part 1.04.3. specifies dryer performance at minus 40 degrees F dew point but Part 2.05.A. specifies refrigerated dryer, please clarify | 2/19/2003 | **Spec does not apply, control air is from the CDA system.** | N | 8 |

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| | | | which type of dryer is required. | | | | |
| 338 | 09670 | Specification | Specification 09670. Floor type FC-2 per spec says 40mil. FC-2 per finish schedule on drawings says 50 mil. Which is correct? Is type C-1 flooring in spec supposed to be FC-1? | 2/19/2003 | **40 mil is correct. "C-1" should read "FC-1".** | N | 8 |
| 339 | Vol. AA1.5 Electrical | Section | Sequence 79, 26 - Sequence 79 requires installation of type "j" fixtures in this area. Per Fixture schedule sequence 26,type J is a 2'x4' Fluorescent Lay-in fixture. What is the correct fixture type and manufacturer cat.#?<br><br>Sequence 80, 26 - Same question as ABOVE. | 2/19/2003 | **Fixture is a Lithonia PXC175MA23 277 175W, lowbay pendant mounted industrial type fixture.** | N | 8 |
| 340 | 229 & 231 | Sequence | Sequence 229 (room 1817A) Within ballooned area, there appears to be "New" Fixtures, but no fixture type is given. Are these new fixtures? If so, please provide fixture types.<br><br>Sequence 231 (rooms 1617,1617A,1618) Sames question as above. | 2/19/2003 | **1 x 4 Recessed 2 lamp fluorescent Lithonia SPF2 32RW A12** | N | 8 |
| 343 | Vol. FA1.1-1 Civil Landscape | Section | Sequence 122 - Keyed Note 3 call for 15 ft pole. Please provide pole type and or mounting detail. That specific fixture requires 1-1/2 threaded Hub. Could it be mounted on conduit?<br><br>2.) Sequence 125,127,128,130 - Fixture type 26 (triangle symbol) is specified on these Dwgs. Per sequence 161 (Exterior Lighting Equipment Schedule) there appears to be no such fixture type. Please Provide correct fixture type. | 2/19/2003 | **1.Yes, provide it is RGS.**<br><br>**2.Should fixture type 25.** | N | 8 |

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| 345 | Comment | General | Are the following givens and assumptions for access floor IBC 2000 seismic calculations acceptable:<br><br>FFH = 24"<br>Sds = .56 (calculated) / .53 (given)<br>Fa = 1.4<br>Ss = 60%<br>Ip = 1.5<br>Rp = 1.25<br>z (height of slab) = 21 ft.<br>h (height of roof) = 70 ft.<br>Wp (Axial Force) = 330 lb.<br>Fp (Lateral Force) = 148.5 lb.<br>Overturning Moment = 3341 in. lb. | 2/19/2003 | **Follow the criteria stated in Specification 13037S, paragraph 1.03.C.6. The factors Sds, Fa, Ss, Ip, Rp stated in this questions appear to be correct. Hieght of roof is approximately 64'. No attempt was mde to review the Wp, Fp, Overturning moment values stated in the questions; these will be reviewed in the calculations submitted. Note that IBC paragraph 1621.2.6 applies for calculating Wp. As a minimum, include 25% of live load = 25% x 250 psf (where the total live load = 250 psf for this calculation) in the value of Wp for the access floor.** | N | 8 |
| 347 | Comment | General | In light of the fact that our previously submitted questions from 2/4/03, 2/5/03 and 2/11/03 have not been answered todate, will Sandia consider moving the deadline for RFI's out? Until the first wave of questions are clarified it is hard to determine if additional infomration is required to prepare a detailed proposal.<br><br>Is there any thought to altering the bid due date? | 2/19/2003 | **Yes, extend the bid date to March 17th, 1pm (MST).**<br><br>**Note: Mail or FedEx per the original instructions in the RFQ. If hand carried bids shall be turned in either at the Facilities Contractor Gate (south of the Eubank AFB gate) or to MO-298, Room 107, not Building #885, Room 118, as originally noted in the RFQ, Instruction #10, Part 2.** | N | 8 |
| 367 | Process Vacuum Pumps | General | 1) Process vacuum pumps PV-1 & PV-2 as scheduled do not appear to meet the performance criteria of specification 154615, to meet this criteria would require pump model number LPH-75340 is this correct?<br><br>2) Should vacuum pump housings & impellers be | 2/19/2003 | **1)LPH-75340 is correct.**<br><br>**2) Yes**<br><br>**3) Piping material is specified in 15216S paragraph 2.5M.** | N | 8 |

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| | | | stainless steel to match other in-line vacuum accessories?<br><br>3) Where is material for house vacuum specified it does not appear to be 152165? | | | | |
| 370 | 152145 | Specification | Specification 15214S does not provide a manufacturer for the breathing air, automatic cylinder change panel and monitoring system. Please provide. | 2/19/2003 | **See DQ6001858Ef for Breathing Air System requirements** | N | 8 |
| 389 | SF1002858EF | Drawing | Refer to drawing SF1002858EF. Section 8/SB3002 along column line 9 between column lines N and N.7 appears to be the wrong section. Please provide correct section. | 2/19/2003 | **The correct section is 9A/SB3001.** | N | 8 |
| 390 | SB1020858EL | Drawing | Refer to drawing SB1020858EL. Section 6/SB3010 along column line 3.3 appears to be the wrong section (doesn't show a 20" slab). What is the edge condition along the 20" slab? | 2/19/2003 | **Use same turndown and top reinforcement, extend bottom layer of reinforcement to edge of turndown** | N | 8 |
| 391 | SB1002858EF | Drawing | Refer to drawing SB1002858EF. The chase at column line r / 9 does not show a wall around the perimeter supporting the concrete on metal deck. Should there be a wall continuous around the perimeter of this chase? | 2/19/2003 | **Yes, there should be a wall continuous around the perimeter of this chase.** | N | 8 |
| 392 | SF1003858EF | Drawing | Refer to drawing SF1003858EF. What is the height of the spec. gas vestibule walls? | 2/19/2003 | **9'-0" ceiling** | N | 8 |
| 393 | SF1016858EF | Drawing | Drawing SF1016858EF shows monorail crane support beams. Are the cranes in this contract? If so, where are they specified? | 2/19/2003 | **No – hoists will be installed by SNL.** | N | 8 |
| 395 | AE1009858EF (seq. 95) | Drawing | Refer to drawing AE1009858EF (seq. 95). Section 5 along column line 7.1 refers to drawing AE5010858EF. This drawing does not exist. Please provide. | 2/19/2003 | **AE5101858EF is to be used.** | N | 8 |
| 397 | 1/AE3006858EF | Section | Refer to section 1/AE3006858EF. This section shows a concrete platform between the raised access flooring and the existing building. Structural drawings do not show this platform. Please clarify. | 2/19/2003 | **Provide 3'-1" x D.O. platform 24" AFF with 3 #5 bars equally spaced, top and bottom.** | N | 8 |

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| 399 | Comments | General | What are the steel finishes at the auxiliary structures (cylinder storage, silane pad)? | 2/19/2003 | **Steel shall have Hot Dipped Galvanized finish for all steel structures including in the service yard(silane pad, cylinder storage, pipe bridge, and equipment support structures), steel above the roof line at CUB-1(in addition to Comment # 494 and including pipe supports and misc. steel, ladders, stairs, grating, handrails, cooling tower support, etc.) and steel above the equipment platform north of column 9 that is exposed to outdoors. This hot dipped galvanized requirement includes all bolts and fasteners refer to 05120S. Priming and finish paint in accordance with Specification 09900S is not required on hot dipped galvanized steel. All field welds on hot dipped galvanized steel shall ground, brushed, finished with compatable zinc rich paint, and tagged for inspection of these actions.** | N | 8 |
| 408 | DJ 6001858J | Drawing | Reference drawing DJ 6001858J. The manufacturer for PDOC 1 &2 is listed as PAS. Please provide contact information for PAS. Please provide specification for PDOC 1 &2. | 2/19/2003 | **PAS - (408) 899 6124, 2225 South Price Road, Chandler, Arizona 85428. Coordinate with vendor for proper system for requirements as shown on the drawing for appropriate cylinders.** | N | 8 |
| 415 | 3/ SB3002858J (sequence 009) | Specification | Refer to section 3/ SB3002858J (sequence 009). What is the material used for the concrete sealer? | 2/19/2003 | **Use Specification 071900S.** | N | 8 |
| 420 | CP5202E13 Keyed Notes 4 & 5 | Drawing | Refer to drawing CP5202E13 Keyed Notes 4 & 5. The Recycled Asphalt Base Course and Recycled Crushed Concrete Base Course have discrepancies in the English measurement (8") and the metric measurement (114mm, 140mm, 127mm, & 152mm). Please provide thickness for asphalt or base. | 2/19/2003 | **Omit any reference to metric units. The 8-inch depth applies as shown as the required thickness for both recycled asphalt and crsued concrete base course.** | N | 8 |
| 423 | SB1101858J | Drawing | Keyed note #17 on drawing SB1101858J calls for a perimeter grade beam 18" x 30" at the H2 Tank Pad. Section 11/SB3101 shows a thickened slab edge. Please clarify. | 2/19/2003 | **Cast the grade beam monolithic with the slab as shown on the selection.** | N | 8 |
| 425 | 3/SB3101858J | Section | Section 3/SB3101858J shows a 12" wall at the silane storage pad (drawing SB1101858J. Drawing AE1006858J calls for a 10" wall at the silane storage pad (note #1). Please clarify. | 2/19/2003 | **Use a 12" wall.** | N | 8 |

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| 426 | DP1001858J, Seq. 070, Note 2 | Drawing | Please refer to CUB Drawing DP1001858J, Seq. 070, Note 2 indicates "…For all piping outside of bldg., insulate with 1" molded fiberglass and aluminum…" Also, reference specification section 15250S, Page 15, Table 1, Note 2 indicates "All piping exposed to the weather, in unheated spaces, or with heat tracing shall have 2" of insulation added to the values in the table." Please clarify. | 2/19/2003 | **2" with heat trace.** | N | 8 |
| 427 | MH1064858EF, Seq. 061, Keyed Note 7 | Drawing | Please refer to Microfab Mechanical Drawing MH1064858EF, Seq. 061, Keyed Note 7, indicates "Insulate with 1-1/2" Rigid Board all supply ductwork from AHU-5", Specification section 15081S, Page 8, Table Item, "Air Handling Units AHU 1,3,4,5 - Supply Air or Return Air" indicates that insulation can be type A or B (Rigid or Flexible). Please indicate the intent at this location. | 2/19/2003 | **The keyed notes on the drawings describe the intent for that location.** | N | 8 |
| 428 | Instruction 15, Section III Item 3 | RFQ | Refer to RFQ Instruction 15 Section III Item 3. What information is to be provided for the subcontractors qualifications? | 2/19/2003 | **SNL is requesting that each Contractor turn in information for subcontractors that will perform 10% or more of the total project for each best value criteria. This includes:**<br><br>**I. Contractor Past Performance/Related Experience, New Mexico Business Participation, and Small Business Participation.**<br><br>**II. ES&H Compliance and Construction Safety Program**<br><br>**III. Project Management and Resources**<br><br>**The Contractor shall determine how much detail is necessary to fully explain the subcontractors participation in each criteria.** | N | 8 |

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| 429 | 08210S Wood Doors and drawing 98524/A5A Door Schedule | Specification | Please refer to specification section 08210S Wood Doors and drawing 98524/A5A Door Schedule. In Addendum number 6 it was stated that specification section 08210S was not used. There are new wood doors called out in the existing building. Please clarify. | 2/19/2003 | **Specification 08210S is to be used in this location.** | N | 8 |
| 430 | SB1001PEG of Volume FA1.1-1 | Section | Reference sheet SB1001PEG of Volume FA1.1-1: Please provide documentation noted on this sheet for Gate 14 such as drawing number 104045/S1 needed to be reviewed prior to commencing the work. We would like to review this information prior to the submitting a price. | 2/19/2003 | **Delete General Note 1. Gate 14 is not in the scope of this project.** | N | 8 |
| 431 | 98521/A5J (first level area 5j – partial floor plan) | Section | Reference sheet 98521/A5J (first level area 5j – partial floor plan): Several of the elevations on the reference sheet refer to sheet AE1032858EF which does not exist. Please provide the required sheet. | 2/19/2003 | **This should read 9821/A5J. Refer to 3/A12007858Ef for elevation.** | N | 8 |
| 436 | Clause 9 | RFQ | Does a Value Engineering Incentive proposal have to be sumitted with the bid? | 2/19/2003 | **No. The incentive is applicable to the life of the project.** | N | 8 |
| 439 | Comment | General | Re Lighting:<br><br>1. Are all the inverters SNL furnished and installed?<br><br>2. What are the fixture types for the fixtures in men's & women's locker and toilet areas? See sheets 229 & 231.<br><br>3. Are the exit fixtures in the CUB-1 the same as the ones in the Microfab building?<br><br>4. What type of fixture is in the bathroom of the CUB-1?<br><br>5. Is a new emergency fixture required in the Safety Building? What type of fixture is it? See drawing 132. | 2/20/2003 | **1. The lighting inverters are Sandia furnished and contractor installed.**<br><br>**2. 1 x 4 Recessed 2 lamp fluorescent Lithonia SPF2 32RW A12**<br><br>**3. Yes.**<br><br>**4.Wall mounted bathroom fixture lithonia W240 277**<br><br>**5.Yes. The fixture is a Dual-Lite Series EZ-2, self contained emergency lighting unit.** | N | 8 |

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| 441 | Comment | General | HPM System:<br><br>1. Do you have specification section 16120 Controls Cabling and Wireways referenced in specification section 13870 S HPM Monitoring and<br>Control System? | 2/19/2003 | **Reference Wiring and raceway specifications under Division 16.** | N | 8 |
| 442 | Comment | General | Fire Alarm:<br><br>1. Keyed note 4 on drawing TN1001858J indicates 2-1"C for fire alarm to 90 day waste enclosures. No fire alarm is shown on the riser diagram or matrix for the 90 day waste enclosures. What fire alarm is required at the waste enclosures? | 2/20/2003 | **Coordinate fire alarm contacts with new and existing 90 -day waste FA systems. Add alarm point to riser diagram/matrix and provide operating system.** | N | 8 |
| 443 | 15622S Part 1 1.08 B | Specification | Reference Section 15622S Part 1 1.08 B. The scheduled chiller unloads to 14% of total capacity with constant entering condenser water flow. Is this acceptable in lieu of the specified 10%? | 2/19/2003 | **No, 10% is required.** | N | 8 |
| 444 | Commnet | Specification | Is there an applicable specification section for the heating/ventilation unit, tagged HV-1, and FC-1 scheduled on drawing number MH6002858J? Please advise. | 2/20/2003 | **See Spec #15720S and 15857S forThe manufacturer for the unit.** | N | 8 |
| 451 | 15723S 2.04.A.1. | Specification | Specification Section 15723S 2.04.A.1. requires a 316L stainless steel interior perforated liner for all RAH units. Typically, recirculating air-handling units have solid liners. Should the interior of the RAH units be solid liner everywhere? Also, is it the intent of the specification to have a "flush" liner, so that no galvanized metal is exposed to the airstream? Please advise. | 2/20/2003 | **Perforated liner with fully mylar encapsulated insulation is required on all RAH units per the specification. Flush liner with no galvanized metal exposed to the air stream.** | N | 8 |
| 452 | 15723S 2.04.A.1 | Specification | Specification Section 15723S 2.04.A.1. requires a 316L stainless steel interior liner for all RAH units. Is it the intent of the specification to have all blank-off material | 2/20/2003 | **It is the intent to have all internal metal surfaces exposed to the air stream as stainless steel, unless specifically noted otherwise.** | N | 8 |

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| | | | and the fan wall made of 316L stainless steel also? Please advise. | | | | |
| 455 | MH6005858 | Drawing | Drawing MH6005858 includes the schedule for MAH-5. This unit has dual supply fans. Is it the intent that each fan be sized for the full, scheduled supply airflow quantity and design total static pressure, thereby making for redundant fans? Please advise. | 2/20/2003 | **Yes.** | N | 8 |
| 456 | 15721S 2.04.B.7 | Specification | Specification Section 15721S 2.04.B.7 requires a magnehelic across fan section. Is this magnehelic to be similar to the filter magnehelic gauges (a Dywer 2000 for example)? Also, is this gauge separate than the gauge required for the CFM measuring device in the fan section? Please advise. | 2/20/2003 | **Yes and Yes, Refer to Specification 15123S, issued with Amendment #7.** | N | 8 |
| 465 | Clause 7, paragraph C | RFQ | Is there any provision in SNLregulations that provides for the SCR to reduce the retainage to zero<br>percent at 50% billing of the contract in recognition of satisfactory progress? | 2/20/2003 | **No. The retainage will not be reduced to zero, but may be negoiated with excellent performance after 90%.** | N | 8 |
| 466 | Best Value Criteria | RFQ | Has further consideration been given to including<br>oral presentations in the event of Best and Final discussions? | 2/20/2003 | **Yes. SNL reserves the right to request that contractor(s) make an oral presentation prior to award.** | N | 8 |
| 467 | Specifcation 13870, paragraph 2.08 | Specification | Specifcation 13870, paragraph 2.08 requries a remote call out system by RACO Verbatim. Where is the remote system to be located. It is not called out on the system block diagram | 2/20/2003 | **Located in Merc Room See Drawing FJ1008858EF.** | N | 8 |
| 469 | Space Management drawings | Drawings | Reference Space Management drawings, Structural steel and unistrut components are not sized here nor on the structural drawings. Please provide<br>complete drawings and details, showing structural steel sizes, unistrut sizing and attachment details. | 2/20/2003 | **Structural Steel is shown on SB1001858Ef. Contractor shall design and provide pipe and duct support for vertical and lateral loads per specification sections 13085 and division 15. Unitstut components for duct and piping supports are to be provided as described in the 15000 series specifications for duct and piping supports.** | N | 8 |
| 470 | Space Management | Drawings | HVAC drawings reference Space Management drawings for fan attic piping. Space Management drawings do not include (cross sections and | 2/20/2003 | **Refer to GJ1006858EF to section Cut "A" on MH3001858EF for piping locations.** | N | 8 |

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| | | | common rack) areas of the fan attic. | | | | |
| 472 | Comment | General | PCW, and most other process systems, flow diagrams and plan drawings pipe sizes do not agree. Please review and correct sizing<br>inconsistencies. | 2/20/2003 | **Please clarify the exact location of inconsistencies. The plans and flow diagrams should have the same level of detail and correct sizing. Use large pipe sizes for inconsistencies.** | N | 8 |
| 473 | DP1033858EF seq. 140 | Drawing | Reference drawing DP1033858EF seq. 140, note for PCW to continue on 98542/MJ. This drawing is not included in the package, please provide.<br>Same drawing is missing for PV. | 2/20/2003 | **The correct reference is 98542/M5J.** | N | 8 |
| 475 | Comment | General | PV flow diagram at "Back end" show 3" branches off the 4" lateral,but plan drawings do not show this. which is correct? | 2/20/2003 | **Plan view DJ1045858EF is correct.** | N | 8 |
| 480 | Comment | General | Do floor sinks and hub drains require trap primers? If so, pleaseprovide routing of pipe and connection details | 2/20/2003 | **No trap primers are required.** | N | 8 |
| 481 | PL7003858EF seq. 035 | Drawing | Safety Shower count on plan drawings does not seem to be consistent with flow drawing PL7003858EF seq. 035. Please correct drawings and/ or provide safety shower count. | 2/20/2003 | **Flow drawing is schematic in nature and not intended to indicate quantity. There are 65 safety showers in the basement and 10 on the first level** | N | 8 |
| 482 | NPW flow diagrams (seq. 034) | Drawing | NPW flow diagrams (seq. 034) and plan drawings, pipe sizes do not agree. Please review and correct sizing inconsistencies. | 2/20/2003 | **See revised NPW drawings attached (PL1006, PL1007, PL1018, PL1019, PL1020, PL1021).** | Y | 8 |
| 484 | Raindrain flow diagrams (seq. 037) | Drawing | Raindrain flow diagrams (seq. 037) and plan drawings, pipe sizes do not agree. Please review and correct sizing inconsistencies | 2/20/2003 | **Typical rain water leader diagram is indicated to show intent of path of risers. Refer to plans for pipe sizes.** | N | 8 |
| 485 | Plumbing | Drawing | 1st floor plumbing drawing show 4" S pipe up to FS-2. | 2/20/2003 | **FS-2 is correct. Coordinate area of review with** | N | 8 |

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| | | | The drawing for the area above show FS-1. Which Floor Sink is to be used?<br><br>Plumbing drawings appear to be lacking in continuation of vent and drain lines to the upper levels. Please review and update drawings. | | **correct area above or below. Refer to key plan for clarification. Some vent lines are on the match line** | | |
| 489 | 011 | Drawing | Provide spefication for spray nozzle (see drawings 011) | 2/20/2003 | **Refer to revised drawing PL1009858EF, Seq. 011 in the mechanical set. Spray nozzle is for chemical room wash down. Change size of supply piping and valve to 1" with ¾" branch piping. Provide a ¾ K-PVC-210 as manufactured by FloodJet (www.spray.com) (cut sheet atached), mounted at 12" A.F.F. and 45° from parallel to the walls in each corner as shown and parallel to the floor.** | Y | 8 |
| 493 | SF5002858J | Drawing | Please refer to details on drawing SF5002858J. These details indicate standard connection angles, which are field welded to columns. Can these be shop welded to the beams and bolted to the columns? | 2/20/2003 | **Actual connections are shear tabs. See 3-B/SF5003858J for typical connections. Alternate connections methods may be acceptable if submitted with signed calculations.** | N | 8 |
| 494 | SF1002858J | Specification | SF1002858J, should all exposed steel material on the CUB above El. 137' be galvanized as detailed (17/SF5002858J)? | 2/20/2003 | **Yes, see keyed note 3 on SF1002858J. Galvanize all steel above the roof deck.** | N | 8 |
| 495 | 13/SF5001858J | Details | Please refer to details 13/SF5001858J, gusset plate are shown to be field welded to the Column/Base Plate. Please provide gusset size. Please also confirm that gussets can be shop installed instead of field welded | 2/20/2003 | **18" minimum weld to base plate, 42" minimum weld to column web, size gusset plate to fit with 2" minimum clearance between connection and column. Connection can be shop welded to gusset.** | N | 8 |
| 496 | 1/SF5002858J | Drawing | Are all closure plates galvanized as shown on detail 1/SF5002858J? | 2/20/2003 | **Yes, all closure plates are galvanized as shown on Detail 1/SF5002858J.** | N | 8 |
| 501 | Sheet 98524/A1 | Section | Partition Detail N on Sheet 98524/A1 indicates "7490" at the exterior wall. Please clarify what "7490" means. | 2/20/2003 | **Not in scope. Not in bubble.** | N | 8 |
| 504 | AE3002858EF | Section 1 | Building Section 1 on Sheet AE3002858EF makes reference to Detail 10 on Sheet AE3002858EF. Please confirm the correct reference shall be Detail 1 on Sheet AE5007858EF. Similarly, please confirm the correct | 2/20/2003 | **The reference from Detail #10 on sheet AE3002858EF is Detail #1 on sheet AE5007858Ef. The reference from Detail #3 on Sheet AE3002858EF is detail #3 on sheet AE3007858EF.** | N | 8 |

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| | | | reference for Access Flooring Detail 3 on Sheet AE3002858EF on the same building section shall be Detail 3 on Sheet AE5007858EF. | | **sheet AE3007858EF.** | | |
| 507 | AE3004858EF | Drawing | Wall Section 2 on Sheet AE3004858EF indicates metal wall panel on vapor retarder on ½" sheathing on 10" steel studs underneath metal deck. Please clarify. | 2/20/2003 | **Delete Note.** | N | 8 |
| 508 | AE2001858EF | Drawing | Exterior elevations per Sheets AE2001858EF and AE2002858EF indicates preformed metal wall panels and precast concrete wall panels to be provided at exterior wall. Please provide details showing method of construction at the connection/transition between the two systems. | 2/20/2003 | **Standard Practice: ½" backer rod and sealant.** | N | 8 |
| 509 | AE1002858EF and AE1009858EF | Drawing | Sheet AE1002858EF and AE1009858EF make reference to Detail 2 on AE4101858EF at Freight Elevator #89A and Vert Recip Conveyor #89B. This detail is not included in the bid documents. Please confirm the correct detail shall be 2 on Sheet AE4010858EF. | 2/20/2003 | **Correct.** | N | 8 |
| 522 | AF6001858EF Room Finish Schedule | Drawing | Please refer to drawing AF6001858EF Room Finish Schedule. All rooms in area 4A are called out to receive cleanroom system ceiling except rooms L1513, L1519, and L1538. Drawing AG1008858EF Area 4A Reflected Ceiling Plan (Amendment #6) shows a standard lay-in ceiling, not a cleanroom system (the predominant ceiling item appears to be a 2'x 2' white square which is shown on the legend as a fluorescent light fixture). Please clarify. | 2/24/2003 | **Ceiling shall be 2' X 2' lay-in.** | N | 8 |
| 528 | Stair | Section | The Stair Sections indicate Stair Treads on top of the Concrete Panfilled Steps and matching Rubber Tile at the landings, yet the Room Finish Schedule makes no mention of these. Are they Required? If so, do you | 2/26/2003 | **Refer to generic tread type in flooring spec. Stringers and risers are to be painted Steel.** | N | 8 |

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| | | | have a specific tread in mind, or just the generic type as specified in the Resilient Flooring Specification? In the Specifications relating to these Stair Treads, there is mention of "Stringers and Risers" but these are not detailed or referenced on the Room Finish Schedule or drawings. Are these Required? | | | | |
| 529 | Comment | General | In the Sub-Fab is 4 " base required on all walls, or just at Gypsum Board walls? | 2/26/2003 | **Just on sheetrock walls.** | N | 8 |
| 531 | 03450 | Specification | Spec section 03450 calls for finishes PC-1 and PC-2. Amendment item # 97 indicates to use PC-1 for all MFAB and technicians areas. Does this include the CUB panels? | 2/26/2003 | **Yes this includes the CUB panels.** | N | 8 |
| 532 | Comment | General | Is PC-2 used anywhere on this project? | 2/26/2003 | **No PC-2 is not used anywhere on this project.** | N | 8 |
| 533 | Sheet AE2001858EF | Drawing | MFAB architectural drawing sheet AE2001858EF calls for panels to match color and finish of existing panels on Building 858. Is PC-1 finish deemed as matching existing Building 858 panels? | 2/26/2003 | **Yes, Delete "Match finish of existing precast panels of building 858" and use PC-1.** | N | 8 |
| 534 | Comments | General | The precast panel dimensions, as scaled from the building elevation drawings, are very large from a fabrication and handling point of view. Will the precast manufacturer have the option of changing panel joint locations? Are additional panel joints, both vertical and/ or horizontal acceptable? | 2/26/2003 | **Yes, but general contractor must coordinate with structural system and submit to SNL for approval.** | N | 8 |
| 535 | Comment | RFQ | Amendment #4 added contractor markups to quote. Amendment #7 states that the completed RFQ shall have address all requested information. No additional forms will be provided. The current RFQ does not show the markup. Are we to provide an additional form with the markups or will the RFQ be updated? | 2/26/2003 | **The RFQ will not be updated. Contractors are asked to submit the percentage mark-up information on a separate sheet attached to the RFQ document.** | N | 8 |

# SNL MESA Project
# MicroFab RFQ Amendments Log

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| 536 | Comment | General | Item 417 incorporates a milestone schedule (meet or exceed). The schedule awards the contract in May, Groundbreaking in June, Start work in July, and complete backfill/waffle slab in October. We feel it will be very difficult to complete the waffle slab in four months (assuming start July 1st and finish October 31st). The vehicle barrier talked about in Amendment #7 and referenced on drawing GC1201E13, Note 22, would make it even more difficult, considering that this is a substantial barrier structure that would need rebar and structural steel shop drawings, concrete submittal approval, concrete lift drawings, and steel embeds fabricated for construction. | 2/26/2003 | **1. Contractor should submit schedule to meet or exceed dates provided or provide schedule with new proposed dates.**<br>**2. Agree, the barrier does not have to be in place prior to construction start but may be installed in parallel with start of construction.** | N | 8 |
| 537 | 15491S Paragrpah 1.5.E | Specification | I have another question. In Special Specification Section 15491S paragraph 1.5.E (It actually should be H) it requires submittal of a "letter of compliance to SEMI S2 criteria." Does this letter need to come from an independent third party testing lab, or can it be a letter from us stating that the systems were designed and fabricated to meet the requirements of SEMI S2? Third party testing adds a significant cost to each system, and since there are six boxes with different designs, they would all need to be tested. | 2/26/2003 | **Can be from the manufacturer stating the systems were designed and fabricated to meet the requirements of SEMI S2.** | N | 8 |
| 538 | GC1201E13, Rev. B | Drawing | Revise the logistics and contractor staging/laydown area per the revised drawing GC1201E13, Rev. B in the infrastructure package attached. | 2/26/2003 | **Revises drawing issued (attached file mstphplan)** | Y | 8 |
| 539 | AE1004585J (Seq. 26, note 4)AE1006585J (Seq. 27, note 10)DJ5002858J (Seq. 75, Section A – Process Piping) | Drawing | Seq. 026 – Details 9 & 10 show continuous ¼" plate "wall" behind cylinders on one (east) side<br>of rack and as 1'6" dividers between cylinders on other (west) side of rack. Both details also refer to "Unistrut P1001 (typ of 3)" (Note: Should be P1000).<br><br>Seq. 026 – #3-Building Section refers to Detail 10 on Seq. 26. There is no elevation of the cylinder racks, | 2/28/2003 | **1. The plate shown on Seq. 26 is 9'-0" high. The plate shown on Seq 27 is 1'-6" AFF and is 5'-0" high.**<br>**2. The plate shown on Seq. 27 is 1'-6" AFF and is 5'-0" high and applies only to the wall behind the cylinders.**<br>**3. There are no steel plate dividers between the cylinders, only behind the cylinders.** | N | 8 |

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| | | | except those attached to the wall. #1-Floor Plan and #3-Building Section do not give any indication of ¼" plates. This is not consistent with the details.<br><br>Seq. 027 – Note 10 and #6-Building Section refer to Details 9 & 10 on Seq. 026. #1-Floor Plan and #6-Building Section are consistent with Details 9 & 10. #6-Building Section indicates ¼" plate "wall" behind cylinders extends from 6" AFF upward to the third horizontal strut member (6'6" AFF). This is consistent with "Unistrut P1001 (typ of 3)" It appears on the Floor Plan that 1'6" dividers are between cylinders on west side of rack only. This is consistent with the details.<br><br>Seq. 075 – #A-Process Piping Section has a note at bottom right, " 1/16" thick steel plate" and<br>points to what appear to be dividers on the east side of the rack similar to what is on the west side of the rack. These dividers do not appear on the plan view.<br><br>Question 1. Does the 9'0" height for the ¼" plate referred to in Addendum #7-273 apply to the rack on Seq. 027 or the rack on Seq. 026, or both?<br><br>Question 2. If the 9'0" height (from 0'6" AFF to 9'6" AFF) applies to Seq. 027, does it apply only to the "wall" behind the cylinders, or does it also apply to the dividers between the cylinders?<br><br>Question 3. Can you verify that there are no dividers between the cylinders on the rack shown on Seq. 026 and no dividers on the east side of the rack shown on Seq. 027 and Seq. 075? | | | | |
| 540 | Comment | General | Concerning the Gas hot water boilers, The plan sheet calls out for CSD-1 insurance code compliance. | 2/28/2003 | **Use NFPA-8501.** | N | 8 |

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| | | | However CSD-1 will only cover boilers up to 250 Horsepower. Any boiler over 250 Horsepower falls under the guidelines of NFPA-8501 for insurance code compliance. Is NFPA-8501 what Sandia wants as we are unable to cover the boiler with CSD-1? | | | | |
| 541 | Question #378 | Amendment 7 | Revision to Question #378, Amendment #7.<br>"Deluge riser serving the silane pad is located in MicroFab riser room shown on Sheet FX1006858EF as noted in Keyed Note 10 on sheet FX1002858J."<br><br>No revision needs to be made to the keyed note. The drawing is not in the CUB-1 package but it was provided with the Fab drawing package. | 2/28/2003 | **Revise Amendment #7 response.** | N | 8 |
| 546 | Emergency Generator | Section | Refer to Question 527 in Addendum #7:<br><br>It states that the Emergency Generator set is now contractor furnished and no longer Sandia furnished.<br><br>This leads to 2 questions.<br>1) Specification 16621S-2.13.A Calls for a resistive/ reactive load bank. Does Sandia want resistive or reactive or both?<br><br>2) The drawings show two ATS switches on the cub, one for the Fab and one for the Lab. The lab is future. Are we to include the ATS for the Lab in our scope of work? | 3/4/2003 | **The generator set shall be a Caterpillar 3512B Lo Emissions strategy EPA/UL (Part Number 512DE2J) this machine shall be rated 1400 kW at sea level and 1200 kW for site conditions. The generator set shall be equipped with a UL double wall fuel tank base of 10 hours capacity and a weatherproof enclosure from Surround Industries. Enclosure shall include 480-208Y/120V 3-phase transformer and secondary panelboard sized to supply enclosure lighting, convenience receptacle (gfci), battery charger, block heaters and other accessories. Provide output circuit breakers per drawings.**<br><br>**The automatic transfer switch (ATS) shall be 1600A 480V 3-phase 4-pole closed transition Russelectric Model RTBD-CT16004CEF with Model 2000 microprocessor control. Include the following accessories: 1d, 2a, 2d, 2e, 4b, 5a, 6x, 7, 8, 9a, 9ax, 9b, 9bx, 9nbp, 9edp, 9x, 9xx, 14a, 14b, 19bd, 26, 27b, 27TK, NCBTR, TNR, FIT, ECBTR, 5c, 7x, 21x.** | N | 8 |

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| | | | | | **The load bank shall be an Avtron model K875 A permanent outdoor resistive (1.0 PF) load bank rated 1200 kW at site. Include control panel with 50 kW steps located with load bank. Load bank shall include a utility interrupt relay interlocked with ATS control.** | | |
| 547 | 15KS-1 | Specification | Could you clarify that material listed under 1.02-A-1. for CDA, N2, 2N2 application can be seamless or welded under ASTM 269 and ASTM 632. | 3/4/2003 | **Material for CDA, N2 and 2N2 shall be Type L hard drawn copper cleaned for O2 service. Also refer to PL1014858EF and PL1030858EF for CDA piping updates.** | Y | 8 |
| 548 | 15860S and 15835S | Specification | Spec 15860S and 15835S have been updated to clarify vibration requirements | 3/4/2003 | **See attachment for revised specs.** | Y | 8 |
| 549 | CI1202E13, CI1520E13, TY1001858J, TN1001858J, EP1001858J | Drawings | CI1202E13, CI1520E13, TY1001858J, TN1001858J, and EP1001858J have been revised to clarify turnstyle located North of MFab | 3/4/2003 | **See attached for revised drawings.** | Y | 8 |
| 550 | 07910S | Specificaton | Pop out specification 07910S issued for clarification (refer to Amendment #7) | 3/4/2003 | **See attached specification.** | Y | 8 |
| 551 | 09250 | Specification | Certain Specifications refer to the Uniform Building Code (U.B.C.) such as Spec.09250 3.08a2, other specifications may refer to the Uniform Mechanical Code (U.M.C.) or Uniform Plumbing Code (U.P.C.), should we be referring to the 2000 International Building Code (I.B.C.) or 2000 International Mechanical Code (I.M.C.) or 2000 International Plumbing Code (I.P.C.) for this Micro Fab project? | 3/4/2003 | **We will be referring to the 2000 International Building Code (I.B.C.) or 2000 International Mechanical Code (I.M.C.) or 2000 International Plumbing Code (I.P.C.) for this Micro Fab project.** | N | 8 |